

ENFINIA™ Plasmid DNA

Specifications and Submission Guidelines

ENFINIA™ Plasmid DNA is long, linear, high-accuracy DNA cloned into a plasmid vector – sequenced and shipped from our facilities in the US as fast as 10 business days. Now the unmatched speed, length, and complexity of our ENFINIA™ Linear DNA is available as a cloned plasmid. With plasmids up to 18 kb and inserts as long as 15 kb, you can iterate through designs faster, complete projects, faster – all while avoiding the cost and long lead time of conventional clonal gene synthesis suppliers.

FEATURES

- Vectors up to **18 kb in length** with ENFINIA DNA inserts from **300 bp to 15 kb** *depending the vector selected*
- **NGS-verified** sequence-perfect clones at **50 ng to 1 µg** *depending on the vector selected*
- **Predominantly supercoiled**; containing **less than 10% genomic DNA** by mass
- Select from a library of standard vectors including:
 - pAAV2 (with CMV, CAG, hSyn or AAV2 ITRs only)
 - pUC19
 - pBR322
 - psaRNA
- Shipped within **10 to 20 business days** of order *depending on complexity*

INSERT SEQUENCE SUBMISSION ACCEPTANCE CRITERIA

	Standard Complexity	High Complexity
Insert sequence length	300 – 15,000 bp	300 – 15,000 bp
Overall GC content	25 – 65%	20 – 80%
100 bp GC content	22 – 75%	12 – 83%
Local GC variation	up to 60%	up to 70%
Repeats	up to 20 bp	up to 150 bp
Homopolymers*	up to 7 bases for G/C and 8 bases for A/T	up to 8 bases for G/C and 12 bases for A/T

1. ENFINIA Plasmid DNA can be ordered at a minimum synthesis yield of 50 ng (low-copy vectors) to 1 µg[†] (high-copy vectors).
2. ENFINIA Plasmid DNA is delivered as dried-down DNA in a 96-well microplate, one plasmid per well.
3. Each ENFINIA Plasmid DNA sequence is NGS-verified before shipment.
4. Insert sequences should not contain elements that are toxic to *E.coli*.

* At this time, the QC methods we use for production do not provide high confidence in the fidelity of A/T homopolymer sequences longer than 12 bp and G/C homopolymer sequences longer than 8 bp. We are working to address this in the near future.

† Synthesis yield as measured by Thermo Fisher Scientific Quant IT Assay.

